Shop Made Joiner and Boatwright Tools

by Bob Smalser

A small sample of tools I've made over the decades from hardwood scraps from joiner and boatbuilding projects. My family's background is Mennonite.....and frugal, and I always made a practice of not moving on to the next project until all the wood was used to best advantage from the previous one. Lotsa fun, too.

I post this to give y'all some additional ideas on how to use up your scraps and free time between major projects.

My mentors were Dad and three childless Uncles...one built commercial waterman’s boats, one spec houses, and the remainder were frugal farmers who hired out almost no work...we did it all, often by hand.

The frame resaw is H. Mahogany with B. Walnut stretcher and handles, assembled with bridle joint and threaded rod/wing nut bearing on washers. The blade was a coarse crosscut blade from Garret Wade I refilled into a 4 TPI rip blade, it is held in slots by steel pins made from drill rod stock.

The Tage Frid-pattern Danish Bowsaw is identical in construction to the resaw above. Highland Hardware has the blades. The remainder of the bowsaws have string tension adjustment with loose M/T stretchers. The handles are turned and fitted with brass-pipe ferrules with a quarter-inch bronze rod inset in epoxy and slotted to receive sawblade and pin. The ferrules bear on bronze washers inset into blind holes in the frame. This bowsaw is mahogany and walnut.

The fret saw is B. Cherry and walnut with Cocobolo handles. The small coping saw is B. Rosewood with checkering as a decoration. When I make the next coping saw from rosewood, I will use smaller scantlings to save weight – this one is unnecessarily strong.

The mallets are a simple pattern that uses small glued scraps, handles are wedged and glued and wrapped with cotton twine. They live a hard life and are expendable. The trammel points on the cherry bar were turned from rosewood with brass lamp finials turned to a round tenon and pointed, inset in epoxy. The small walnut keysaw was turned in walnut with brass ferrule and blade mount...the blades came from Garret Wade and are mounted with a simple bronze wing nut. The boatbuilder’s planking divider is brass sheet with silver-brazed steel tip set mounted in rosewood hollowed to receive a pencil, which is help with a spring hose clamp. These dividers are used to "spile" or to transfer shapes from the boat to planking stock.

The oak and maple miter trimmer has an integr al clamp from threaded dowels (I use a Beall Wood Threader) that holds the M/T'd rail or stile that's had a decorative bead planed into the face. The end of the bead is aligned with the plane blade, the blade loosened in it's mortise by two more threaded dowels, and the end of the blade tapped with a hammer.

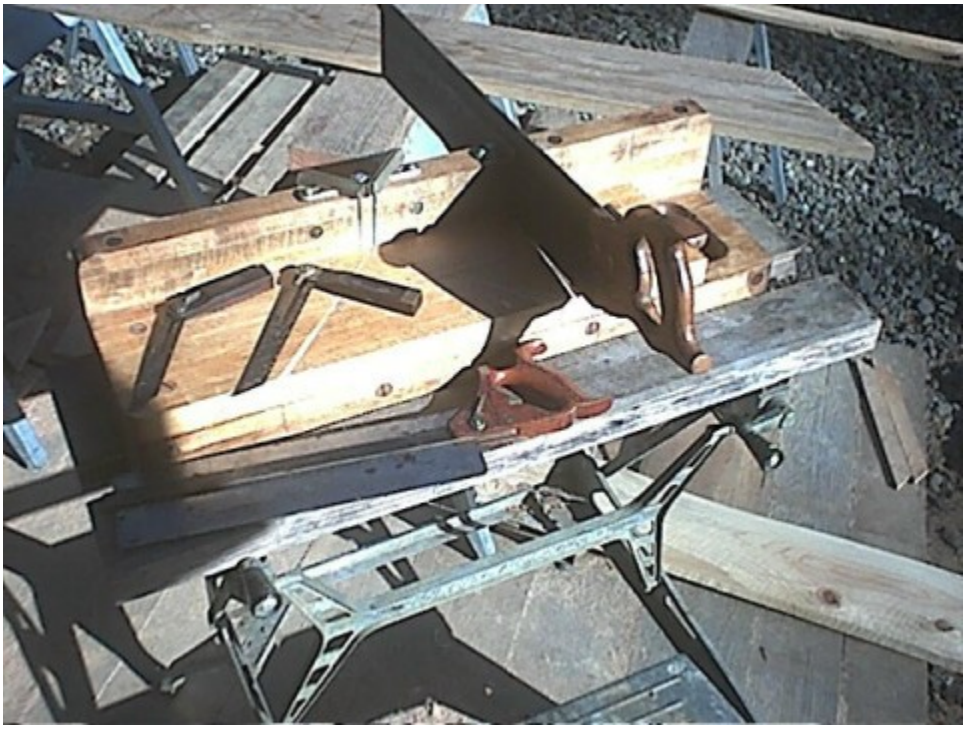
The saw vice has pine uprights with cut birdsmouths to hold the beveled vice jaws and reinforced by carriage bolts to prevent splitting. The bin is made from cherry and attached with wedged dowels. Had a lovely set of coved cherry jaws that got lost in a move...these are temporary DF replacements for the time being.

Various handles turned or rasped to fit heirloom tools. The slick is used for ship timbers too large to move to a horse or machine.

Handscrews made from glued-up scraps, dowels threaded with a Beall Wood Threader, and turned handles. Some have one-piece handle and shaft turned on the lathe.

Maker’s mark carved with chisels from an old soldering iron and rehandled.

Tap and dowel handles made for the Beall Wood Threader.



Miter saw base with removable false table of edge-laid hard maple and wedged dowels. Sawguide hardware and tools are heirloom pieces.

Shaving horse of salvaged, old-growth D. Fir with Madrone dumbhead and treadle. Wear areas are reinforced with brass and copper sheet and bushings.

Construction is traditional, with tapered and wedged round M/T. Had I not had this stick of old-growth on hand, I would have used maple for the legs...old-growth DF, however, equals the strength of most oaks.

Made this walnut/oak carpenter’s box as a teenager 4 decades ago...carcass dovetails are misaligned and there’s far too much ostentation for my taste these days...but it remains in service. I keep it around to remind myself that I can do poorly-thought-out work, too.